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EXAMINER

HAMILTON, MONPLAISIR G

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/837,436

Applicant(s)

FRIEDER ET AL.

Examiner

Monplaisir G Hamilton

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,7,8 and 10-36 is/are pending in the application.
- 4a) Of the above claim(s) 2-4, 6 and 9 is/are cancelled.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,7,8 and 10-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-28 were pending. The communication filed on 10/17/03 amended Claims 1, 5, 8, 10, 12-14, 19-28, added Claims 29-36 and cancelled Claims 2-4, 6 and 9. Claims 1, 5, 7-8, and 10-36 remain for examination.

Information Disclosure Statement

2. The information disclosure statement filed on 10/17/03, Paper No. 7, Appendix A and B fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 18 recites the limitation "the most likely" in limitation a-ii. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains: Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6523022

issued to Hobbs, herein referred to as Hobbs in view of US 6076088 issued to Paik et al, herein referred to as Paik et al, herein referred to as Paik.

Referring to Claim 1:

Hobbs discloses a method for digital data gathering in response to a query, comprising:
conducting searching of a physical data warehouse containing structured and unstructured data sources (col 16, lines 5-10; col 15, lines 5-10; col 26, lines 10-25),
preselecting data sources most likely to contain a valid response to the query before submitting the query to the data sources (col 10, lines 15-20, col 12, lines 30-35, col 18, lines 5-10), and
combining results from said structured and unstructured data source searches (col 26, lines 10-25).

Hobbs does not explicitly disclose "sorting the results to provide a direct answer"

Paik discloses sorting the results to provide a direct answer (col 22, lines 50-67).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Hobbs such that the results are sorted to provide a

Art Unit: 2172

direct answer to the query. One of ordinary skill in the art would have been motivated to do this because it would allow the system to answer W-H questions about the stored data (Paik - col 4, lines 5-15).

5. Claims 5, 7-8, 10-13, 19-22 and 27-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6078314 issued to Redfern, herein referred to as Redfern in view of US 6523022 issued to Hobbs, herein referred to as Hobbs further in view of US 6076088 issued to Paik et al, herein referred to as Paik et al, herein referred to as Paik.

Referring to Claim 5:

Redfern discloses a method of digital data gathering for providing an answer to a natural language question, comprising:

- a) accepting input of a natural language question (col 3, lines 18-19);
- b) identifying the relevant concepts of the natural language question col 4, lines 30-65);
- c) assembling the relevant concepts of the natural language question into a query (col 6, lines 10-20);
- e) performing a first search of the query in the physical data warehouse (col 9, lines 15-25-10);
- f) performing a second search of the query in an unstructured data source not contained in the physical data warehouse (col 9, lines 1-15);
- g) integrating the results of the first and second searches and selecting an a direct answer to the natural language question (col 10, lines 45-50);

Art Unit: 2172

Redfern does not explicitly disclose “d) identifying a data source in a physical data warehouse likely to contain an answer to the query”. However, Redfern does disclose that general enquiries may be passed to the set of three search engines while any enquiry relating to legal issues may be sent to any two engines and Lexis database (col 9, lines 20-25).

Hobbs explicitly discloses that Lexis is a data warehouse (col 2, lines 25-30).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern such that identifying a data source in a physical data warehouse likely to contain an answer to the query is performed by the system. One of ordinary skill in the art would have been motivated to do this because it would allow the system to search sources that are relevant to the users query (Redfern-col 9, lines 20-30).

Redfern in view of Hobbs does not explicitly disclose “h) displaying the direct answer to the natural language question”.

Paik discloses displaying the direct answer to the natural language question (col 22, lines 55-67).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern in view of Hobbs to displaying the direct answer to the natural language question. One of ordinary skill in the art would have been motivated to do this because it would allow the system to answer W-H questions about the stored data (Paik - col 4, lines 5-15).

Art Unit: 2172

Referring to Claim 7:

Redfern and Hobbs in view of Paik discloses the limitations as discussed in Claim 5 above. Redfern further discloses eliminating redundant search results and ranking search results in order of relevance (col 10, lines 45-52).

Referring to Claim-8:

Redfern and Hobbs in view of Paik discloses the limitations as discussed in Claim 5 above. Redfern further discloses routing the query and identified structured data source to a structured data source manager (col 9, lines 15-30).

Referring to Claim 10:

Redfern and Hobbs in view of Paik discloses the limitations as discussed in Claim 5 above. Hobbs further discloses identifying the data source in the physical data warehouse via a meta-data source for the physical data warehouse (col 12, lines 30-35).

Referring to Claim 11:

Redfern and Hobbs in view of Paik discloses the limitations as discussed in Claim 5 above. Redfern further discloses eliminating irrelevant words of the natural language question from use in the query (col 2, lines 55-60).

Art Unit: 2172

Referring to Claim 12:

Redfern and Hobbs in view of Paik discloses the limitations as discussed in Claim 5 above. Redfern further discloses routing the query to an unstructured data source manager (col 9, lines 1-10).

Referring to Claim 13:

Redfern and Hobbs in view of Paik discloses the limitations as discussed in Claim 5 above. Paik further discloses displaying data related to the answer (col 22, lines 60-65).

Referring to Claim 19:

Redfern discloses an intranet mediator for providing a direct answer to a natural language question, comprising:

a) a user interface with:

i) a natural language question input module for accepting natural language questions (col 2, lines 50-61); and

b) a parser module for identifying the relevant concepts of the natural language question, assembling the relevant concepts of the natural language question into a query and eliminating irrelevant words of the natural language question from use in the query (col 4, lines 35-55);

c) an unstructured data source manager for managing query input to, and accepting results from, unstructured data sources outside of a physical data warehouse (col 9, lines 15-25);

d) a data source selection module for accepting the query from the parser and for identifying a data source likely to contain an answer to the query (col 9, lines 20-23);

the data source selection module being connectable, to a meta-data source for a physical data warehouse (col 16, lines 5-15),

g) the unstructured data source manager further accepting the query and any identified unstructured data sources from the dispatcher and performing a search of the query in the identified unstructured data sources outside of the physical data warehouse and forwarding the results of the search to a results manager (col 9, lines 1-35);; and

h) a results manager module for accepting the results of the structured and unstructured data source searches and integrating the results of the searches (col 10, lines 40-65).

Redfern does not explicitly disclose “a dispatcher module for accepting the query from the parser and for accepting the identified data source from the data source selection module and routing the query and identified data source to a physical data warehouse data source manager or the unstructured data source manager, or both and f) the physical data warehouse data source manager being for accepting the query from the dispatcher and performing a search of the query in the physical data warehouse and forwarding the results of the search to a results manager module”. However, Redfern does disclose that general enquiries may be passed to the set of three search engines while any enquiry relating to legal issues may be sent to any two engines and Lexis database (col 9, lines 20-25).

Hobbs discloses that Lexis is a data warehouse (col 2, lines 25-30). Hobbs also discloses the physical data warehouse data source manager being for accepting the query from the dispatcher and performing a search of the query in the physical data warehouse and forwarding the results of the search to a results manager module (col 19, lines 15-222; col 26, lines 5-25)

Art Unit: 2172

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern such that a dispatcher module for accepting the query from the parser and for accepting the identified data source from the data source selection module and routing the query and identified data source to a physical data warehouse data source manager or the unstructured data source manager, or both, discloses the physical data warehouse data source manager being for accepting the query from the dispatcher and performing a search of the query in the physical data warehouse and forwarding the results of the search to a results manager module. One of ordinary skill in the art would have been motivated to do this because it would allow the system to search sources that are relevant to the users query (Redfern-col 9, lines 20-30).

Redfern in view of Hobbs do not explicitly disclose “ii) an answer module for display of the most likely answer; selecting the direct answer and forwarding the direct answer to the answer module.”

Paik discloses ii) an answer module for display of the most likely answer; selecting the direct answer and forwarding the direct answer to the answer module (col 22, lines 55-67).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern in view of Hobbs such that ii) an answer module displays of the most likely answer; selecting the direct answer and forwarding the direct answer to the answer module. One of ordinary skill in the art would have been motivated to do this because it would allow the system to answer W-H questions about the stored data (Paik - col 4, lines 5-15).

Art Unit: 2172

Referring to Claim 20:

Redfern and Hobbs in view of Paik disclose the limitations as discussed in Claim 19 above. Redfern further discloses the natural language question input module being constructed and arranged for allowing the user to manually select data sources if desired (col 9, lines 20-30).

Referring to Claim 21:

Redfern and Hobbs in view of Paik disclose the limitations as discussed in Claim 19 above. Paik further disclose the answer module being constructed and arranged for display of the direct answer and data associated therewith (col 22, lines 55-67).

Referring to Claim 22:

Redfern and Hobbs in view of Paik disclose the limitations as discussed in Claim 19 above. Redfern further discloses means for accumulating search results for a specified time or specified number of results before displaying the direct answer (col 11, lines 39-42).

Referring to Claim 27:

Redfern discloses an intranet mediator for providing a direct answer to a natural language question, comprising:

- b) unstructured data sources outside of the physical data warehouse (col 9, lines 1-6);;
- d) a natural language question input module for accepting natural language queries and allowing the user to manually select data sources if desired col 2, lines 55-60; col 9, lines 20-30);

e) a parser module for identifying the relevant concepts of the natural language question, assembling the relevant concepts of the natural language question into primary query tokens and eliminating irrelevant words of the natural language question from use as primary query tokens, and for accepting results from a query expander module (col 4, lines 30-40);

f) a query expander module for accepting the primary query, determining analogous terms to the primary query tokens, and forwarding the primary query tokens and the analogous terms to an unstructured data source manager, and assembling enhanced query tokens from the results (col 11, lines 10-30);

g) an unstructured data source manager for managing enhanced query token input to, and accepting search results from, the unstructured data sources outside of the physical data warehouse (col 9, lines 40-col 10, lines 20);

i) a dispatcher module for accepting the enhanced query tokens from the parser and for accepting the identified data sources from the data source selection module and routing the enhanced query tokens and identified data sources to a structured data source manager and an unstructured data source manager (col 9, lines 10-30);

k) the unstructured source manager further accepting the enhanced query tokens and identified unstructured data sources from the dispatcher and performing a search of the enhanced query tokens in the identified unstructured data sources and forwarding the results of the search to a results manager (col 9, lines 25-65);

l) a results manager module for accepting the results of the structured and unstructured data source searches for each enhanced query token and integrating the results of the searches (col 10, lines 40-60).

Redfern does not explicitly disclose:

“a) a physical data warehouse containing structured data sources;

c) a meta-data repository having meta-data for the structured data sources;

h) a data source selection module: for accepting the enhanced query from the parser module and connectable to the meta-data source for the physical data warehouse, and for identifying a data source likely to contain an answer to each of the enhanced query tokens;

j) a structured source manager for accepting the enhanced query tokens and the identified structured data sources from the dispatcher and performing a search of the enhanced query tokens in the identified structured sources and forwarding the results of the search to a results manager module;”

Redfern does not explicitly disclose a physical data warehouse. However, Redfern does disclose that general enquiries may be passed to the set of three search engines while any enquiry relating to legal issues may be sent to any two engines and Lexis database (col 9, lines 20-25).

Hobbs explicitly discloses that Lexis is a data warehouse (col 2, lines 25-35).

Hobbs also discloses a) a physical data warehouse containing structured data sources (col 16, lines 5-10);

c) a meta-data repository having meta-data for the structured data sources (col 19, 35-40);

h) a data source selection module: for accepting the enhanced query from the parser module and connectable to the meta-data source for the physical data warehouse, and for identifying a data source likely to contain an answer to each of the enhanced query tokens (col 10, lines 15-30; col 11, lines 60-65; col 26, lines 5-25);

j) a structured source manager for accepting the enhanced query tokens and the identified structured data sources from the dispatcher and performing a search of the enhanced query tokens in the identified structured sources and forwarding the results of the search to a results manager module (col 26, lines 5-25).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern such that a physical data warehouse, metadata repository containing information about the structured sources, a source selection module for choosing an appropriate source and a structure source manager for retrieving results and forwarding them to the answer module. One of ordinary skill in the art would have been motivated to do this because it would allow the system to search sources that are relevant to the users query (Redfern-col 9, lines 20-30).

Redfern in view of Hobbs do not explicitly disclose "1) selecting the a direct answer to the natural language question and forwarding the direct answer to the answer module;

m) an answer module for display of the direct answer and associated data links."

Paik discloses selecting the a direct answer to the natural language question and forwarding the direct answer to the answer module (col 22, lines 50-65);

m) an answer module for display of the direct answer and associated data links (col 22, lines 62-66).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern in view of Hobbs such that ii) an answer module displays of the most likely answer; selecting the direct answer and forwarding the direct answer to the answer module. One of ordinary skill in the art would have been motivated to do

Art Unit: 2172

this because it would allow the system to answer W-H questions about the stored data (Paik - col 4, lines 5-15).

Referring to Claim 28:

Redfern and Hobbs in view of Paik disclose the limitations as discussed in Claim 27 above. Hobbs further discloses the meta-data-repository having meta-data for unstructured data sources within the physical data warehouse (col 11, lines 60-65; col 15, lines 10-15; col 17, lines 25-30 col 19, lines 30-40).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6078314 issued to Redfern, herein referred to as Redfern and US 6523022 issued to Hobbs, herein referred to as Hobbs in view of US 6076088 issued to Paik et al, herein referred to as Paik et al, herein referred to as Paik further in view of US 6301584 issued to Ranger, herein referred to as Ranger.

Referring to Claim 14:

Redfern and Hobbs in view of Paik discloses the limitations as discussed in Claim 5 above.

Redfern and Hobbs in view of Paik do not explicitly disclose “accumulating search results for a specified time before displaying the direct answer.”

Ranger discloses accumulating search results for a specified time before displaying the direct answer (col 18, lines 1-10, 58-65).

Art Unit: 2172

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern and Hobbs in view of Paik such that the system accumulates search results for a specified time before displaying the direct answer. One of ordinary skill in the art would have been motivated to do this because it would allow the system to determine when to stop searching for results, allowing the system to either return an empty result set or a timeout notification (Ranger-col-18, lines 1-15).

7. Claims 15 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6078314 issued to Redfern, herein referred to as Redfern and US 6523022 issued to Hobbs, herein referred to as Hobbs in view of US 6076088 issued to Paik et al, herein referred to as Paik et al, herein referred to as Paik further in view of US 6633867 issued to Kraft et al, herein referred to as Kraft.

Referring to Claims 15 and 23:

Redfern and Hobbs in view of Paik discloses the limitations as discussed in Claim 5 and 21 above.

Redfern and Hobbs in view of Paik do not explicitly disclose “accumulating additional search results after displaying the direct answer”.

Kraft discloses accumulating additional search results after displaying the direct answer (col 3, lines 5-25).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern and Hobbs in view of Paik such that the system

Art Unit: 2172

accumulates additional search results after displaying the direct answer. One of ordinary skill in the art would have been motivated to do this because it would allow a user to be notified of new results that should be added to the result set (Kraft- col 4, lines 15-20).

8. Claims 16-18 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6078314 issued to Redfern, herein referred to as Redfern and US 6523022 issued to Hobbs, herein referred to as Hobbs and US 6076088 issued to Paik et al, herein referred to as Paik et al, herein referred to as Paik in view of US 6633867 issued to Kraft et al, herein referred to as Kraft further in view of US 6304864 issued to Liddy et al, herein referred to as Liddy.

Referring to Claims 16 and 24:

Redfern and Hobbs in view of Paik discloses the limitation as discussed in Claims 15 and 23 above.

Redfern and Hobbs in view of Paik do not explicitly disclose “updating the ranking of the search results by incorporating the additional search results.”

Liddy discloses updating the ranking of the search results by incorporating the additional search results (col 11, lines 25-40).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Redfern and Hobbs in view of Paik to update the ranking when new documents are included in the search results. One of ordinary skill in the art would have been motivated to do this because it would allow the user to see new results that relevant to the query ranked with the initial result (Liddy-col 11, lines 50-60).

Referring to Claim 17 and 25:

Redfern, Hobbs and Paik in view of Liddy disclose the limitations of Claims 16 and 24 above. Liddy further discloses providing a second display updating the ranking of the search results by incorporating the additional search results (col 11, lines 50-60).

Referring to Claim 18 and 26:

Redfern, Hobbs and Paik in view of Liddy disclose the limitations of Claims 17 and 25 above. Redfern further discloses the second display updating the ranking of the search results is manually actuated (col 15, lines 20-30).

9. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6567812 issued to Garrecht et al, herein referred to as Garrecht in view of US 5920856 issued to Syeda-Mahmood, herein referred to as Syeda.

Referring to Claim 29:

Garrecht discloses a method for digital data gathering in response to a query, comprising: conducting concurrent searching of structured and unstructured data sources (col 9, lines 25-35),

Garrecht does not explicitly disclose “preselecting data sources most likely to contain a valid response to the query before submitting the query to the data sources; and sorting results of the data source searches and providing a direct answer to the query.”

Syeda disclose preselecting data sources most likely to contain a valid response to the query before submitting the query to the data sources (col 6, lines 15-20, col 4, lines 5-10); and

Art Unit: 2172

sorting results of the data source searches and providing a direct answer to the query (col 8, lines 40-50).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Garrecht such that a direct answer is returned from a source that was preselected before the query is sent to the a source. One of ordinary skill in the art would have been motivated to do this because it would allow the user to receive targeted results based on the content of the query (Syeda-col 4, lines 20-25).

10. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 5920856 issued to Syeda, herein referred to as Syeda in view of US 5987454 issued to Hobbs, herein referred to as Hobbs

Referring to Claim 30:

Syeda discloses a method for digital data gathering in response to a query, comprising: combining structured data sources into a database with a metadata repository (col 5, lines 35-65), conducting a search of at least one data source within the database (col 6, lines 30-20), and sorting results of the at least one data source search and providing a direct answer to the query (col 6, lines 40-45).

Syeda does not explicitly disclose the database is “a physical data warehouse”.

Hobbs discloses that a database that contains more information about one or more databases is a data warehouse (col 2, lines 25-35, col 16, lines 5-10).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teaching of Syeda such that the database is a physical data warehouse. One of ordinary skill in the art would have been motivated to do this because the system would be optimized for decision making (Hobbs-col 2, lines 30-35).

~~11. Claims 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US~~
5920856 issued to Syeda, herein referred to as Syeda and US 5987454 issued to Hobbs, herein referred to as Hobbs in view of 6567812 issued to Garrecht et al, herein referred to as Garrecht.

Referring to Claim 33.

Syeda and Hobbs discloses the limitation as discussed in Claim 30 above.

Syeda and Hobbs do not explicitly disclose conducting a search of an unstructured data source outside of the physical data warehouse and combining and sorting the results of the unstructured data source search with the results of the physical data warehouse search.

Garrecht discloses conducting a search of an unstructured data source outside of the physical data warehouse (col 11, lines 35-40; col 13, lines 10-15; col 16, lines 25-40) and combining and sorting the results of the unstructured data source search with the results of the physical data warehouse search (col 16, lines 60-65; col 17, lines 35-54).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Syeda and Hobbs such that an unstructured data source not in the warehouse is searched along with the warehouse, the results from both the warehouse and source being combined and sorted. One of ordinary skill in the art would have been

Art Unit: 2172

motivated to do this because it would allow answers from heterogeneous sources to be viewed at the same time (Garrecht-col 9, lines 25-30).

Referring to Claim 35.

Syeda and Hobbs in view of Garrecht disclose the limitation as discussed in Claim 33 above. Garrecht further disclose the selection of the direct answer is weighted to the search results from the data warehouse (col 17, lines 40-45).

12. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 5920856 issued to Syeda, herein referred to as Syeda and US 5987454 issued to Hobbs, herein referred to as Hobbs in view of US 2002/0116176 by Tsourikov et al, herein referred to as Tsourikov.

Referring to Claim 31.

Syeda and Hobbs discloses the limitation as discussed in Claim 30 above.

Syeda and Hobbs do not explicitly disclose “conducting a search of unstructured data sources outside of the physical data warehouse if a direct answer is not selected from the physical data warehouse search.”

Tsourikov discloses conducting a search of unstructured data sources outside of the physical data warehouse if a direct answer is not selected from the physical data warehouse search (paragraph 0019).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teaching of Syeda and Hobbs such that the system searched the web

if an answer was not found in the database, physical data warehouse. One of ordinary skill in the art would have been motivated to do this because it would allow the user to retrieve an answer if the database didn't have one (Tsourikov-paragraph 0024, lines 7-10).

13. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6523022

~~issued to Hobbs, herein referred to as Hobbs and US 6076088 issued to Paik et al, herein referred~~
to as Paik et al, herein referred to as Paik in view of US 2002/0116176 by Tsourikov et al, herein referred to as Tsourikov.

Referring to Claim 32.

Hobbs and Paik disclose the limitation as discussed in Claim 1 above.

Hobbs and Paik do not explicitly disclose "conducting a search of unstructured data sources outside of the physical data warehouse if a direct answer is not selected from the physical data warehouse search."

Tsourikov discloses conducting a search of unstructured data sources outside of the physical data warehouse if a direct answer is not selected from the physical data warehouse search (paragraph 0019).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teaching of Hobbs and Paik such that the system searched the web if an answer was not found in the database, physical data warehouse. One of ordinary skill in the art would have been motivated to do this because it would allow the user to retrieve an answer if the database didn't have one (Tsourikov-paragraph 0024, lines 7-10).

Art Unit: 2172

14. Claims 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6523022 issued to Hobbs, herein referred to as Hobbs in view of US 6076088 issued to Paik et al, herein referred to as Paik et al, herein referred to as Paik further in view of US 6078314 issued to Redfern, herein referred to as Redfern.

Referring to Claim 34:

Hobbs in view Paik discloses the limitations as discussed in Claim 1 above.

Hobbs in view Paik do not explicitly disclose “conducting a search of an unstructured data source outside of the physical data warehouse and combining and sorting the results of the unstructured data source search with the results of the physical data warehouse search.”

Redfern discloses conducting a search of an unstructured data source outside of the physical data warehouse (col 9, lines 1-25) and combining and sorting the results of the unstructured data source search with the results of the physical data warehouse search (col 10, lines 45-50; col 15, lines 20-30).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Hobbs and Paik such that a search of an unstructured data source not in the physical database is conducted and combining the results from the unstructured source with the results from the warehouse and sorting the results. One of ordinary skill in the art would have been motivated to do this because it would allow the system to search heterogeneous sources (Redfern-col 2, lines 35-50).

Art Unit: 2172

Referring to Claim 36:

Hobbs and Paik in view of Redfern disclose the limitation as discussed in Claim 34 above. Paik further discloses the selection of the direct answer is weighted to the search results from the data warehouse (col 22, lines 55-65).

Final Rejection

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2172


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monplaisir G Hamilton whose telephone number is 1703-305-5116. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on 1703-305-9790. The fax-phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 1703-305-3900.

Monplaisir Hamilton



JEAN M. CORRIELUS
PRIMARY EXAMINER